

Appl. No. 09/414,712

Filed 10/08/99

Reply to Office Action of January 12, 2005

Page 2

Amendments to the Claims:

Claim 1 (Currently Amended): A digital security system comprising:

at least one camera unit for capturing and transmitting frames of video and/or audio signals over a communication network, wherein said camera unit is programmable to perform at least one of the following: to transmit a snap shot, streaming video, or an event clip upon detecting a predefined event, to simultaneously transmit a snap shot, streaming video and an event clip or combinations thereof upon detecting a predefined event, and to detect different predefined events based on the time of day, the camera unit includes a network bandwidth controller that adjusts the signal transmission delay of the camera unit as a function of a network collision rate and priority of the camera unit;

at least one customer server coupled to the camera unit via the communications network;

at least one customer work station coupled to the customer server via the communications network;

an administrator server coupled to the at least one client customer server via the communications network, wherein the administrator server receives event packets and associated video and/or audio information, and intelligently routes the event packets and information to one or more administrator work stations; and

authentication means at the administrator server for authenticating a customer at the at least one customer work station so as to allow the work station to receive the video and/or audio signals transmitted by the at least one camera unit;

~~wherein the administrator server receives the event packets and associated video and/or audio information, and intelligently routes the packets and information to one or more administrator work stations.~~

Claim 2 (Original): The system of claim 1, wherein the camera unit transmits video and/or audio signals over the communications network only after detecting a predefined event.

Appl. No. 09/414,712
Filed 10/08/99
Reply to Office Action of January 12, 2005
Page 3

Claim 3 (Currently Amended): The system of claim 1, wherein the camera unit transmits video and/or audio signals over the communications network in response to receiving a command from a user at the customer work station or ~~[[an]]~~ at least one administrator work station.

Claim 4 (Original): The system of claim 1, wherein the camera unit tags the frames of video and/or audio signals based upon detecting one of a plurality of predefined events.

Claim 5 (Currently Amended): The system of claim 1, wherein the camera unit transmits ~~[[an]]~~ at least one event packet when a predefined event is detected.

Claim 6 (Canceled)

Claim 7 (Canceled)

Claim 8 (Canceled)

Claim 9 (Original): The system of claim 1, wherein the camera unit is operable in a plurality of modes.

Claim 10 (Original): The system of claim 9, wherein the camera unit may be remotely configured to operate in one of the plurality of modes via the at least one customer work station.

Claim 11 (Currently Amended): The system of claim 1, wherein the camera unit includes a ~~h~~glass glass break detector.

Appl. No. 09/414,712

Filed 10/08/99

Reply to Office Action of January 12, 2005

Page 4

Claim 12 (Currently Amended): The system of claim 11, wherein the glass break detector includes: an audio input receiver means, a digital signal processor for computing ~~spectrograms~~ spectrograms of incoming audio signals, and a means for comparing a predefined glass break spectrogram template against the spectrograms computed by the digital signal processor.

Claim 13 (Original): The system of claim 1, wherein the camera unit includes a motion detector that analyzes the video signals captured by the camera unit.

Claim 14 (Original): The system of claim 13, wherein the motion detector comprises a digital signal processor that includes an automatic learn component that automatically updates a stored background image against which the digital signal processor performs motion analysis detection.

Claim 15 (Original): The system of claim 13, wherein the camera unit increases one or more of the bit rate, pixel coding depth, the image size, frame rate, and compression algorithm format associated with the video signals in response to detecting motion in the video signals.

Claim 16 (Original): The system of claim 13, wherein the camera unit includes an object detector.

Claim 17 (Original): The system of claim 13, wherein the camera unit includes an object speed detector.

Claim 18 (Currently Amended): The system of claim ~~[[13]]~~ 17, wherein the camera unit determines whether to transmit an event packet over the network based on the speed of the detected object.

ATL01/11920561v1

Appl. No. 09/414,712

Filed 10/08/99

Reply to Office Action of January 12, 2005

Page 5

Claim 19 (Original): The system of claim 13, wherein the camera unit includes an object movement detector that detects the direction of movement of a detected object.

Claim 20 (Currently Amended): The system of claim 19, wherein the camera unit determines whether to transmit ~~[[an]]~~ at least one event packet over the network based on what direction the detected object is moving.

Claim 21 (Original): The system of claim 1, wherein the authentication means includes means to compare inputted user identification information against a database of monitored sites to which the user may access.

Claim 22 (Canceled)

Claim 23 (Original): The system of claim 1, wherein the administrator server includes means for receiving event packet information from the at least one camera unit, and means for transmitting relevant contact information to one or more administrator work stations.

Claim 24 (Original): The system of claim 1, wherein the administrator server includes means for receiving the event packet information from the at least one camera unit and means for automatically contacting one or more of the local police, local fire department, and customer contact.

Appl. No. 09/414,712

Filed 10/08/99

Reply to Office Action of January 12, 2005

Page 6

Claim 25 (Original): The system of claim 1, wherein the camera unit includes: a camera system; an encoder coupled to the camera system that encodes the video signals transmitted by the camera system; and an automatic gain controller coupled to the camera system and the encoder, the automatic gain controller receiving mean, maximum, and minimum intensity video signal values from the camera system, and variance and delta values from the encoder, and providing in response a control signal that controls the gain of the camera system so that the camera unit transmits video signals with substantially constant image luminance for varying lighting conditions.

Claim 26 (Original): The system of claim 1, wherein the camera unit includes:

- a camera system;
- an encoder coupled to the camera system that encodes the video signals transmitted by the camera unit;
- an encoder buffer coupled to the encoder; and
- an encoder buffer controller coupled to the camera system and the encoder buffer, the encoder buffer controller receiving as inputs an in buffer bit rate input from the encoder, and an out buffer bit rate from the encoder buffer.

Claim 27 (Canceled)

Claim 28 (Currently Amended): The system of claim [[27]] 1, wherein the camera unit autonomously determines its priority based on the type of predefined event it is experiencing.

Claim 29 (Original): The system of claim 1, wherein the camera unit is coupled to a conventional sensor.

Claim 30 (Original): The system of claim 29, wherein the camera unit is configured to receive an alarm signal from the conventional sensor, and to transmit an event packet over the network in response to receiving the alarm signal from the conventional sensor.

ATL01/11920561v1

Appl. No. 09/414,712
Filed 10/08/99
Reply to Office Action of January 12, 2005
Page 7

Claim 31 (Original): The system of claim 30, wherein the camera unit starts transmitting video and/or audio signals in response to receiving the alarm signal from the conventional sensor.

Claim 32 (Original): The system of claim 30, wherein the camera unit changes a characteristic of transmitted video and/or audio signals in response to receiving the alarm signal from the conventional sensor.

Claim 33 (Original): The system of claim 29, wherein the camera unit performs boolean analysis of an alarm signal sent by the conventional sensor and an event detected by the camera unit before transmitting an event packet over the network.

Claim 34 (Original): The system of claim 1, wherein the camera unit simultaneously transmits video signals in more than one compression algorithm standard format in response to detecting certain predefined events.

Claim 35 (Original): The system of claim 1, wherein the camera unit simultaneously transmits video signals according to the JPEG format and the H.263 format in response to detecting certain predefined events.

Claim 36 (Original): The system of claim 1, wherein the camera unit simultaneously transmits video signals having differing bit rates.

Claim 37 (Original): The system of claim 1, wherein the camera unit simultaneously transmits video signals having differing frame rates.

Claim 38 (Original): The system of claim 1, wherein the camera unit simultaneously transmits video signals having differing pixel coding depths.

ATL01/11920561v1

Appl. No. 09/414,712
Filed 10/08/99
Reply to Office Action of January 12, 2005
Page 8

Claim 39 (Original): The system of claim 1, further comprising at least one administrator workstation coupled to the administrator server.

Claim 40 (Original): The system of claim 39, wherein a graphical user interface is provided at one of the administrator or customer workstations, and wherein the graphical user interface schematically displays event durations for a plurality of camera units.

Claim 41 (Original): The system of claim 39, wherein the video or audio information schematically represented by the event duration display is accessible by a user clicking on the event duration display.

Claim 42 (Original): The system of 39, wherein the customer and administrator work stations include a multi-algorithm reader that allows the work stations to display successive frames of video signals encoded in different compression algorithm standard formats.

Claim 43 (Original): The system of claim 4, wherein the camera unit tags the frames of video and/or audio signals by inserting information in the header of the transmitted frames that identifies the predefined event.

Claim 44 (Original): The system of claim 5, wherein the event packet includes information in the header of the event packet that identifies the predefined event.

Claims 45-57 (Canceled).